

Workshop Report Reef Resilience Learning Exchange 2011

Building Resilience Into Reef Management: Lessons Learned and New Tools



Yimnang Golbuu of PICRC begins the Learning Exchange by providing an example on how Palau builds resilience into MPA design. © The Nature Conservancy

**The Nature Conservancy
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Background

The Nature Conservancy hosted a series of events as part of the International Marine Conservation Congress held in Victoria, Canada from May 13 to May 18. The first part of the exchange was a 1-day pre-congress workshop focused on solving problems associated with MPA network design and implementation. The second part of the exchange was a ½ day symposium held during the congress proceedings that presented the latest resilience science and application advances and was complemented by an active panel discussion. These activities are part of the larger NOAA Coral Reef Conservation Program partnership with TNC, and are hosted at least twice each year until 2013. The topics of each Learning Exchange vary, according to the needs and specific objectives of each jurisdiction or geography.

The Conservancy designed and facilitated the exchange activities, which included presentations from regional and global experts on coral reef management, including Dr. Yimnang Golbuu (Palau International Coral Reef Center), Dr. Sangeeta Mangubhai (The Nature Conservancy), Dr. Alison Green (The Nature Conservancy), Jeanne Brown (The Nature Conservancy), Dr. Jeffrey Maynard (independent consultant), Lizzie McLeod (The Nature Conservancy), Dr. Tim McClanahan (Wildlife Conservation Society), Dr. Stuart Campbell (Wildlife Conservation Society) and Dr. Peter Mumby (University of Queensland).

Part 1: Resilience Management Workshop

This workshop was designed to focus on the challenges and solutions associated with building resilience into management, specifically focusing on MPA networks. The objectives were as follows:

1. To foster strong ongoing communication and collaboration between coral reef management practitioners from all over the world.
2. To present to others and discuss successful use of resilience principles and management actions in places such as Palau, Indonesia, and the Caribbean.
3. To identify a list of challenges universally faced by all reef managers and foster a discussion for solutions for these management issues and challenges.

Expected Results of the Workshop

We expected to provide an opportunity for participants to share work from various geographies and use that as a starting point to generate a list of challenges they face in implementation of management strategies. Our plan was to facilitate discussions that resulted in solutions that would be useful for a broad audience. From discussions amongst their peers in small groups and with the larger group, participants were expected to go home with potential solutions for some of their challenges, provided to them by the examples of others. We also expect to be able to incorporate these challenges and solutions into upcoming resources that we will be refining as part of our ongoing development of the Reef Resilience Toolkit.

Methodology

The Learning Exchange agenda was designed to promote creative problem solving, with ample time allotted to the discussion of challenges and solutions posed to the group. The group had a total of 35 people participating, and it was comprised of about 1/3 invited participants and speakers, while the rest were self-selected. They represented countries in Southeast Asia, Pacific Islands, Caribbean, East Africa, and beyond. The morning session began with presentations from PICRC and the TNC Indonesia program. Dr. Yimnang Golbuu

of PICRC presented on the methodology used to identify resilient reefs within Palau for the design of a MPA network. This was followed by a presentation by Dr. Sangeeta Mangubhai of the TNC Indonesia program on the development of a field monitoring program used by their researchers to identify which reefs ranked highest in importance for protection and management based on a list of resilience characteristics. Participants were then able to pose questions to the presenters and discuss how these example protocols may be useful in other areas.

After the case study session, our discussion moved toward identifying questions shared amongst these participants regarding implementation of resilience design principles into MPA networks (or similar scenario) in order to develop a set of solutions. This was done by breaking up into three small 'challenge circles', where the each group identified one question shared by all or the majority of the group. The group discussed details surrounding this question, and then participants were asked to generate a solution to the problem during a period of silence. Afterward, each group member shared their solution, discussed them, and identified the top solutions to be shared more broadly. We also had time to discuss these solutions with the wider group.

The afternoon session followed a similar structure with case study presentations from by Jahson Alemu of the Trinidad and Tobago Institute of Marine Affairs, Pilar Herron of the Ecomars Foundation in Colombia, and Jeanne Brown of The Nature Conservancy's USVI Program. Jahson Alemu presented his current work that was inspired by his participation in the 2010 Resilience Training of Trainers Course. He shared his work of gaining support from local community members, stakeholders, and political officials in order to develop the first reef resilience program in Trinidad and Tobago. We also heard from Pilar Herron, who discussed her work in Colombia that was inspired by the 2010 Training of Trainers. Finally, Jeanne Brown, who shared with the group her work to build resilience into the management of the coral reef ecosystem in the USVI. Following discussions, we broke into small 'challenge circles' and followed the same process we used in the morning session.

The focus of the afternoon discussions and solution generation was on issues regarding reef management and implementation of resilience principles.

Part 2: Resilience Science Symposium

This symposium featured some of the latest science and management applications from around the world. A panel of global scientific experts including Peter Mumby, Tim McClanahan, Alison Green, Stuart Campbell, Jeffrey Maynard, and Elizabeth McLeod shared their most recent work focused on Reef Resilience. The symposium concluded with a 45-minute panel discussion focused on how the latest scientific information can be used to improve coral reef management and increase the likelihood that corals will persist long term. There was great interest from the audience and a very lively discussion that continued after the time-slot. The session was standing-room only with overflow out the door, with over 100 people attending. It was a great opportunity to showcase the advances of this work and have discussion with key scientists and practitioners in the audience. One example of a productive outcome was a public commitment from a modeling scientist to work with coral reef managers to develop a simple connectivity model that could be used anywhere in the world and would aid in strategic design of MPA networks.

Examples of Lessons Learned & Conclusions from Participants

- “My big take home message from this workshop is the need to increase communication between scientists and local stakeholders, particularly with respect to the concept of resilience. We need to be clear what we mean by resilience and need to explore more efficient ways of explaining the concept without unnecessary jargon. Acquiring the needed funds to support meaningful communication development and dissemination is a challenge but must be prioritized if we are to be successful.”
- In reference to the issue of lack of enforcement and political will: “A lot more efforts needs to be placed on getting information to the relevant authorities and working with them so that they understand what and why we're working so hard to conserve reef resources. I'm optimistic that I/we will succeed, but realistic that it will take a long time.”
- In reference to discussion on figuring out how to assess the vulnerability of coral reefs to multiple and potentially synergistic stressors: “There is currently a lack of guidance for how to integrate various threat layers and determining how to weight each respective layer. Such guidance needs to be developed and shared broadly. I am optimistic that we can achieve this.”
- “Reef resilience indicators are necessary to gauge the future of your reefs, and I should try to incorporate some of these indicators more directly within my programme.”
- “Gained an understanding of the different set of opportunities and obstacles, as well as processes important in each region.”
- “I will be using the results of these discussions to inform my future scientific research. It was extremely helpful to have so many managers in one room to share what challenges they are facing. This information will guide my upcoming work for certain.” (academic scientist)
- Participants found the pre-Congress workshop beneficial in fostering connections early on, that were continually developed during IMCC. Many people were attending the same symposium sessions and focus groups throughout the week, which created a natural camaraderie between reef managers that lead to discussions over meals and in their free time.

Next Steps

These activities are part of a larger effort to continually track the latest science, needs from the field, and new innovations in coral reef management. The results, ideas, and new collaborations from these sessions will be incorporated into our ongoing capacity-building efforts. Other ongoing activities include addressing new topics in the Reef Resilience Toolkit, discussing solutions further via our webinar series, and sharing outcomes with scientists that are working to answer important questions for coral reef managers.

Testimonials

- Presentations provided background for thinking about planning with resilience in mind and prompted good questions with regard to how to address the resilience factors most practically in a management/MPA design setting. Hearing the process that Yim has been involved in was interesting in contrast to my experience in other areas in terms of interest and ability to structure design so strongly with resilience

in mind. Sangeeta's presentation was extremely valuable in understanding how these resilience factors have been applied.

- I'm thinking about how to work with others to apply the resilience factors to reefs in Hawaii. I think it could be a really powerful tool in moving forward in reef conservation in areas that are already dealing with many local impacts.
- I'm working on my research on designing resilient MPA network in Thailand's Andaman Sea so the information gained and social network that I've made should be greatly benefit to my ongoing work. I hope to stay in touch and learn from other people works as much as I can before dive into park managers and stakeholder meeting.
- I think applying principles of resilience will still take some time and prioritizing management based on resilience factors in many areas may take longer. That said, it's a very exciting tool and this workshop was extremely valuable for me in thinking about how to move forward on this in a concrete way. THANKS!

Annexes

Annex A – Agenda

Annex B – List of Participants

Annex A: Agenda

Friday, May 13, 2011

8:30-5:15 pm

Objective: Identify solutions to improve resilient MPA network design and implementation of resilience principles.

9:00-9:45am: Introductions [Name, Institution, Location, and where they see themselves on the Coral Reef Optimism scale] – distribute index cards (2 per person)

Morning Theme: Focus on lessons learned from applying resilience principles to MPA network design - identifying challenges, successes, and solutions. We will hear from 2 speakers about examples of applying resilience principles to MPA network design:

9:45 Yimnang (15 min, plus 5 min questions)

10:05 Sangeeta (15 min, plus 5 min questions)

10:30 Coffee Break – 15 minutes

10:45 Voting Circles: Get people into 4 round table/circle groups, each person will write their top challenge in **applying resilience principles to MPA network design** on a card (3 mins), then cards will be passed around circle and people will have 1 minute to read each challenge and either place a check on the card if they agree that it is in their top 2 challenges they face in their work or simply pass the card on without checking; once each card has gone around group they will tally and select the challenge with most votes. We will encourage people to stay in their groups for the challenge circle as we want the groups to have an equal number of people in each. Note: the person whose card had the most votes needs to stay in the group.

11:00 Challenge Circles

Each group will be facilitated (Steph, Caitlyn, Ali, Jeanne) – facilitators need to keep time, take notes on flip chart, and guide discussion.

1. Background (8 minutes): The person presenting the challenge (i.e., The one whose index card was chosen) explains what their challenge is and what they think might be the proposed actions.

2. Quiet Thinking (2-4 minutes): Group will sit quietly thinking the issue and how it might be dealt with.

3. Roundtable (10 minutes): In turn, each person in the circle puts their ideas on the table (no discussion, just succinctly make their suggestions, facilitator notes each idea).

4. Open Discussion (20 minutes): Facilitator will guide discussion based on ideas presented. This is an opportunity for the group to further discuss ideas and agree upon the top 2-3 solutions or activities.

5. Summary (5 minutes): The person who presented the challenge then summarizes the suggestions and identifies 3 key actions they could take to address their challenge.

11:45 Report Back: We'll have each group share (ideally the person who presented the challenge, but facilitator if needed) – 1 group report back before lunch.

12:00 Lunch

1:00-1:30: Report back from remaining 3 groups

Afternoon Theme: Focus on lessons learned from implementing resilient networks of MPAs, identifying challenges, successes, and solutions (with a focus on stakeholder outreach). We will hear from 3 speakers about examples of outreach activities and implementation of resilience principles:

1:30 Jeanne Brown (USVI)

1:50 Pilar Herron (Colombia)

2:10 Jahson Alemu (Tobago)

2:30 Voting Circles: Get people into 4 round table/circle groups, each person will write their top challenge in **implementing resilient networks of MPAs** on a card (3 mins), then cards will be passed around circle and people will have 1 minute to read each challenge and either place a check on the card if they agree that it is in their top 2 challenges they face in their work or simply pass the card on without checking; once each card has gone around group they will tally and select the challenge with most votes. We will encourage people to stay in their groups for the challenge circle as we want the groups to have an equal number of people in each. Note: the person whose card had the most votes needs to stay in the group.

2:45 Coffee Break (15 min)

3:00 Challenge Circles

Each group will be facilitated (Steph, Caitlyn, Ali, Jeanne) – facilitators need to keep time, take notes on flip chart, and guide discussion.

1. Background (8 minutes): The person presenting the challenge (i.e., The one whose index card was chosen) explains what their challenge is and what they think might be the proposed actions.

2. Quiet Thinking (2-4 minutes): Group will sit quietly thinking the issue and how it might be dealt with.

3. Roundtable (10 minutes): In turn, each person in the circle puts their ideas on the table (no discussion, just succinctly make their suggestions, facilitator notes each idea).

4. Open Discussion (20 minutes): Facilitator will guide discussion based on ideas presented. This is an opportunity for the group to further discuss ideas and agree upon the top 2-3 solutions or activities.

5. Summary (5 minutes): The person who presented the challenge then summarizes the suggestions and identifies 3 key actions they could take to address their challenge.

3:45 Report Back: We'll have each group share (ideally the person who presented the challenge) – 45 minutes

4:30-5:00: Review afternoon session outcomes and discuss next steps for using this information.

Annex B: List of Participants

Ambroise Brenier, WCS
Rina Hauptfeld, PR DNER/NOAA Fellow
Carolyn Lundquist, NIWA/New Zealand
Katheryn Patterson, George Mason University
Emily Kelly, Scripps Inst. Of Oceanography
Vorano Viyakarn, Chulalongkorn University
Suchana Chavanich, Chulalongkorn University
Anne Nelson, BES
Jeffrey Maynard, Melbourne University
Igor Cruz, Universidade Federal Rio de Janeiro
Elizabeth McLeod, TNC
Jeanne Brown, TNC
Jahson Alemu, IMA, Trinidad and Tobago
Muhammad Lazuardi, Conservation Int. Indonesia
Petch Manopawitr, University of Victoria
Pilar Herron, Ecomares Foundation
Sangeeta Mangubhai, TNC
Udo Engelhardt, Reefcare International
Tim McClanahan, WCS
Peter Mumby, University of Queensland
Alison Green, TNC
Joanne Wilson, TNC
Wendy Cover, UCSC
Yimnang Golbuu, PICRC